THE DEADWOOD FAUNA OF CORNWALL

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Most entomologists who visit Cornwall tend to go there for its coastal specialities and all too often miss out on its inland habitats. The Lizard Peninsula and Sennen Cove are the 'classic' sites, not the ancient woodlands, pasture-woodlands and old parks. This is perhaps not too surprising, as the woodland specialities of the region, notably *Carabus intricatus* L. and *Anchonidium unguiculare* (Aubé), are also to be found in Devon, nearer to home for visiting English entomologists, unlike many of the coastal ones which are only to be found in the British Isles in Cornwall.

I have been making a special study of the deadwood fauna of the county over the past 15 years and, so far, 11 beetle species have been added to the county list, three flies, one aculeate wasp, and one false scorpion. The lack of recording of deadwood fauna in the county is well-illustrated by the fact that these additions include such widespread species as the beetles *Cerylon ferrugineum* Steph. and *Pediacus dermestoides* (F.).

While most sites visited appear to have only limited interest, a few are proving to be of considerable potential, notably Boconnoc Park and Ethy Woods, both within the Fowey River catchment. In fact, the lower section of the Fowey catchment is proving to be the most important area of Cornwall for deadwood fauna, although the valleys of the Tamar and Lynher are as yet little explored.

As elsewhere in the British Isles (Harding & Rose, 1986), the fauna is proving to be richest and most interesting in the areas which have had a long and unbroken history of mature and overmature trees—the old parks and other types of pasture-woodlands, rather than the enclosed woods with their history of intensive exploitation for wood products. Old coppices have proved to be not without interest, however, as the practice in Cornwall has been to bring on maiden trees in the valley bottoms as a supply of larger timber (see for example Rackham, 1987). These have maintained some deadwood species which would otherwise be missing from the coppices.

The field records have been checked with the extensive county fauna records collated by the Cornish Biological Records Unit. These contain records of a wide range of deadwood species, although a remarkably high proportion have not been reported since the list compiled by J. Clark for the Victoria County History (Page, 1906). A fuller list of the saproxylic beetles of Cornwall has been published elsewhere (Alexander, 1991).

NEW COUNTY RECORDS

The eleven beetle species recorded for the first time in Cornwall are as follows. *Quedius xanthopus* Er., Boconnoc Park (SX 144598), one beneath bark on fallen oak bough, 24.vi, and Stowe Woods (SS 225113), one beneath bark on collapsed old beech, 6.vii.1989. *Dirhagus pygmaeus* (F.), Ethy Woods (SX 133568), one swept along footpath, 7.vii.1983. *Melasis buprestoides* (L.), dead adults found in extensive borings in a dead oak coppice pole within Greystone Wood (SX 364788), 28.iii.1991. *Selatosomus bipustulatus* (L.), a dead adult of the variety without shoulder maculae, hanging in a spider's web on the trunk of a large old oak on the banks of the Fowey River below Respryn Bridge on the Lanhydrock Estate (SX 097632), 27.vi.1989. *Malthodes guttifer* Kiesenw., frequent, by sweeping, in Dizzard Oakwood (SX 160990), 13.vii.1989. *Thymalus limbatus* (F.), a freshly hatched adult still within the pupal

cell beneath bark on a fallen dead oak bough in Ethy Woods, 18.v.1990. *Rhizophagus nitidulus* (F.), the first record was by S. Grove, who found one in a dead birch, Camerance Wood (SW 839382), 8.vi.1989. I have subsequently found another, under moist bark on a fallen oak trunk in Greystone Wood, 29.iii.1992. *Pediacus dermestoides* (F.), this species is actually widespread in old oakwoods in the county. The first find was of larvae beneath moist bark on a recently fallen holm oak bough in Tremayne Woods (SW 729252), 17.iv.1984. Since then it has been found widely, both as adults and larvae, in both vice-counties, in ancient woodlands and pasture-woodlands, and in valleys draining northwards and southwards—although the latter systems have produced the majority of records. On one occasion, an adult was beaten from hawthorn blossom, Frenchman's Creek (SW 748258), 31.v.1989. *Triplax aenea* (Schaller), the first record was by S. Grove, who found one beneath bark on a large dead beech trunk in Ethy Woods, 27.vi.1989. *Cerylon ferrugineum* Steph., very widespread in old woods and parks in the county. I have encountered it on 27 occasions, from Greystone Wood across southern Cornwall to the Helford River, and in the north at Dunmere Wood (SX 050690), Trebartha Cascade Wood (SX 255772), Millook (SX 180990), and Peter's Wood, Boscastle (SX 113908). *Scolytus intricatus* (Ratz.), surprisingly scarce in the county. Recorded only once, in fallen oak boughs at Boconnoc Park, 20.v.1990.

The following Diptera breeding in dead and decaying timber have been added to the list. *Ctenophora pectinicornis* (L.), one taken by S. Grove at Pengwedhen, Helford Woods, 31.v.1989. *Dictenidia bimaculata* (L.), one taken by S. Grove in Boconnoc Park, 24.vi.1989. *Brachyopa insensilis* Collin, reported by S. Grove at Higher Hill Wood, Trencrom (SW 522362), v.1989.

The one aculeate added is *Passaloecus corniger* Shuckard, one at a standing dead beech trunk in Boconnoc Park, 24.vi.1989.

The false scorpion added is *Lamprochernes chyzeri* (Tomosvary), one under loose bark on an ancient beech, Boconnoc Park, 20.v.1990.

First records since Victoria county history

There are also a wide variety of species which have been recorded for the first time since the list published in the Victoria county history. These include the following beetles. *Abraeus globosus* (Hoffmann, J.), one beneath beech bark, Lanhydrock Park, 27.vi.1989. *Anisotoma humeralis* (F.), Landy Wood, Millook Valley, 25.vi.1989; and one by S. Grove in dead birch, Camerance Wood, 8.vi.1989. *Cerylon histeroides* (F.), one beneath moist bark on fallen oak, Greystone Wood, 29.iii.1992. *Rhizophagus ferrugineus* (Payk.), taken by S. Grove in Ethy Woods, 20.v.1990. *Biphyllus lunatus* (F.), in *Daldinia concentrica* (Bolt. ex Fr.) Cesati & de Notaris on old ash, Ethy Woods, 26.v.1990. *Mycetophagus atomarius* (F.), an elytron under loose bark on collapsed old beech, Stowe Woods, 6.vii.1989. *Melandrya caraboides* (L.), one dead in burrow in heartwood of old beech, Boconnoc Park, 24.vi.1989.

The following fly has also been recorded for the first time since the list. *Xylophagus ater* Meig., widespread in the eastern vice-county, but apparently absent from the west. Discovered in Millook Valley, 26.iii., and Ethy Woods, 27.iii.1985. Subsequently found at Lamorran Wood, Lanhydrock Great Wood, and North Hill Wood, Luxulyan Valley (SX 065564), in 1986; Pencalenick Wood (SW 8545) and Manely Wood, Lerryn Creek (SX 130567), in 1987; Stowe Woods and Trebartha Cascade Wood in 1989; Boconnoc Park in 1990; and Greystone Wood in 1992. All records are for larvae found beneath bark on broadleaved timber.

The following bug is also a recent rediscovery. *Xylocoris cursitans* (Fall.), under bark on beech stump, Boconnoc Park, 24.vi.1989; also under beech bark in Ethy Woods, 14.vii.1989; and Lanhydrock Park.

There are also further species, which were known in the county last century, but have not been reported since. These include the following beetles: *Paromalus flavicornis* (Herbst), *Ctesias serra* (F.)., *Litargus connexus* (Fourc.), *Mycetophagus piceus* (F.), and *Leiopus nebulosus* (L.), amongst many others. The named species are not particularly scarce further east, in southern England, but are clearly rare in Cornwall—if they still persist in the county at all.

Other important records

Three further species are also worthy of special note, the first two beetles, the third a woodlouse.

Mycetophagus quadriguttatus Müller, P. W. J., frequent in powdery fungus on inside of hollow stump of an ancient beech, Boconnoc Park, 24.vi.1989. This is a very rare species, with a relict old forest distribution plus a few records from dried stored products. There are only two previous Cornish records: from a flour mill at St Anthony, and from the Lynher Valley—the situation of the latter is not recorded.

Cryptolestes ferrugineus (Steph.), another species with dual habitats of relict old forest and dried stored products, although much more frequent than *M. quadriguttatus*. I have taken it from rotten beech in Lanhydrock Park, 27.vi.1989, and Boconnoc Park, 20.v.1990.

Haplophthalmus danicus Budde-Lund, frequent in a rotten ash trunk in Trelowarren Woods (SW 727238), 21.v.1989, and in a rotten log in Boconnoc Park, 24.vi.1989. Harding discovered it, new to the county, at Boconnoc Park, and comments that it is rare in the west of Britain (Harding & Sutton, 1985).

Western element

It is not surprising to find a strong western element in the Cornish deadwood fauna. The beetles *Dirhagus pygmaeus*, *Thymalus limbatus*, *Strangalia aurulenta* (F.), and particularly *Carabus intricatus* (which I have yet to encounter), and the fly *Xylophagus ater* are all characteristic of western Britain. They are not only associated with sites which have had a long and unbroken history of large old trees, but also with sites with a particular moist climate. This is especially true for *Carabus intricatus* and *Strangalia aurulenta*, while the other three extend far into northern Britain as well. Perhaps the most important feature of the British distribution of these three is their absence from the East Midlands and East Anglia.

Carabus intricatus is very much the local speciality. The Victoria county history lists it from 'under the bark of trees near Carthamartha' (part of the Inny Foot woodlands in the Tamar Valley) and 'two taken by the Rev. G. Lupton Allen at sugar, near Millook, in 1905'. The only other Cornish records known to me are by K. C. Side who is reported by Allen (1989) to have found it near Lostwithiel and near Bodmin in 1972. Side (1973) exhibited a specimen from Boconnoc Park—presumably the Lostwithiel locality referred to by Allen (1989). With the exception of one record from Somerset reported by Duff (1992), all other British records of this species have come from Devon.

The Fowey catchment sites

Boconnoc Park. This is a remarkable survival of a medieval deer park, still with ancient trees, hawthorns and rough pasture; it is well known as a nationally important site for relict old forest lichen communities. The highlights here are the beetles *Carabus intricatus*, *Strangalia aurulenta*, and *Mycetophagus quadriguttatus*. It is clearly an important site for saproxylic invertebrates, although perhaps only of regional significance. Privately owned, with no public access; SSSI.

Ethy Woods. The early history of this site is unclear, but the present structure suggests old pasture-woodland, although ungrazed for many years. It includes a good number of large old open-grown oaks, at present partly buried in a conifer plantation. The highlights are the beetles *Thymalus limbatus* and *Dirhagus pygmaeus*. Owned by the National Trust.

Lanhydrock Park Estate. Lanhydrock has a mixed history, being partly coincident with a 17th century deer park, now a landscape park owned by the National Trust. There is a good range of mature and overmature trees, but little hawthorn and the pasture has been heavily fertilized. Adjacent areas of the estate include ancient woodland as well as mixed plantations. The most interesting record to date is for the click beetle *Selatosomus bipustulatus*.

Other systems

Helford River Woodlands. Although far to the west, these woods are not without interest. Mostly old oak coppices, but with mature and overmature standards along valley bottoms. The highlights are the beetles *Xyloterus signatum* Fab. and *Strangalia aurulenta*. Some National Trust land, the rest private with limited public access.

Fal Estuary. The lower Fal is lined by old oak coppices extending from the estuary well inland. There are also a few parks, including the National Trust's Trelissick. The most interesting record so far is for the beetle *Rhizophagus nitidulus*. Limited public access.

Tamar Valley. The Tamar includes a number of wooded sections, but the most important block appears to be the complex around Inny Foot, just to the south of Launceston. Although extensively converted to conifer plantation, much of the complex is clearly ancient woodland, and large old oaks and ashes are still frequent along the narrow river flats. The northernmost wood, Greystone, has a character more akin to woods further east, rather than like Cornwall, and not surprisingly is the only Cornish locality for at least two species: the beetle *Melasis buprestoides* and the snail *Cochlodina laminata* Montagu. There is also an old record for *Carabus intricatus*.

Millook Valley. This north coast valley has an interesting mix of ancient woodlands, old pasture-woodland on former common land, and relatively unimproved fields. Old records for *Carabus intricatus*, *Prionus coriarius* L. and *Strangalia aurulenta*. Partly owned by the Woodland Trust, the rest private, but crossed by public paths.

Stowe Woods, Coombe Valley. Although extensively spoilt by conifer forestry, this wooded valley still contains sizeable areas of ancient broad-leaved woodland. The small inland block owned by the National Trust has proved particularly rich. Limited public access.

Valency Valley, Boscastle. This valley is well-wooded, including ancient woodlands such as Peter's Wood, extensive secondary woodland and possibly old pasture-woodland. Partly owned by the National Trust, and with good public access.

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References

Alexander, K. N. A. 1991. The fauna of dead and decaying timber in Cornwall. *Zoological Cornwall and the Isles of Scilly* **1**: 22–25.

Allen A. A. 1989. A brief history of *Carabus intricatus* L. (Col.: Carabidae) in Britain, with special reference to its present day status. *Entomologist's Rec. J. Var.* **101**: 113–115.

Duff, A. G. 1992. Some old records of rare Carabidae (Col.) from western Britain. *Entomologist's Mon. Mag.* **128**: 37.

Harding, P. T. & Rose, F. 1986. *Pasture-woodlands in lowland Britain*. ITE (NERC).

Harding, P. T. & Sutton, S. L. 1985. Woodlice in Britain and Ireland: Distribution and Habitat. Abbots Ripton: ITE (NERC).

Page, W. 1906. *The Victoria county history of the county of Cornwall*. London: Constable.

Rackham, O. 1987. *The Helford River Woods: a report on their history, ecology and conservation.* Unpublished report for Kerrier District Council.

Side, K. C. 1973. [Exhibit at 1972 Annual Exhibition]. *Proc. Trans. Br. Ent. Nat. Hist. Soc.* **5**: 131.

BOOK REVIEW AND NOTICES

Suffolk dragonflies by Howard Mendel. Suffolk Naturalists' Society, Ipswich, 1992, 160 pages, 72 colour plates, 34 maps, ISBN 0-9508154-5-4, hardbound, £12.00.— The exceptional standard in quality natural history publishing set by the Suffolk Naturalists' Society in 1986 by their production of *The butterflies of Suffolk: an atlas and history* has been more than equalled, with this latest book by Howard Mendel. The author's immense personal knowledge of both the Odonata and the county of Suffolk, coupled with his meticulous attention to detail and accuracy have combined to make this one of the most informative and enjoyable reads I have had for a long while. Here, in these conventionally-sized pages, is everything one could possibly want to know about Suffolk dragonflies, and a great deal about the insects in general that is equally applicable outside the county boundary.

Interestingly, the book opens (after the obligatory title pages and the Foreword by Norman Moore) with acknowledgements to those who have helped by communicating their records to the survey. As a recorder of various insect groups myself, I fully appreciate the author's reasoning in placing this section first and I commend him for it—even if my name does seem to have got lost somewhere! A British and Suffolk checklist follows and then a new innovation—a guide to the pronunciation of scientific names. This is often a problem area—I have never yet met two entomologists who completely agree on how different names should be pronounced—and Mendel is to be congratulated for this attempt to make scientific names more attractive to the less scientific reader. I feel confident that many very good field naturalists fail to publish their observations or are generally inhibited from adopting a more scientific approach to their field studies by the unfounded notion